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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,151	10/06/2003	Reinhard Stuber	P23910	5748

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EXAMINER
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HINZE, LEO T

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/678,151

Applicant(s)

STUBER ET AL.

Examiner

Leo T. Hinze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20031006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: the abstract is not in the proper form. The last sentence of the abstract contains language that should be avoided.

Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 15 is objected to because of the following informalities: in line 2 of the claim, it appears that "one" before "said ink nozzle" should be "on".

Appropriate correction is required.

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***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 12-13, 16, 18-21, 28, and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Blau et al., US 2001/0013289 A1.

Regarding claim 1, Blau et al. teach a printing mechanism (23, Fig. 2) of a machine of the tobacco processing industry comprising a tempering device (par 0012, lines 2-3).

Regarding claim 2, Blau et al. also teach wherein the machine is a cigarette rod machine (par 0001, line 11).

Regarding claim 3, Blau et al. also teach wherein said tempering device comprises at least one of at least one heating device and or at least one cooling device (“automatically compensate for temperature”, par 0012, lines 2-3).

Regarding claim 12, Blau et al. also teach wherein said tempering device comprises a control or regulating unit (“automatically compensate for temperature”, par 0012, lines 2-3).

Regarding claim 13, Blau et al. also teach an ink nozzle (53, Fig. 2).

Regarding claim 16, Blau et al. also teach a plurality of distributor rollers (44, Fig. 2), a stamp roller (48, Fig. 2), and a pressure roller (52, Fig. 2), wherein two of said plurality of distributor rollers (43, 46, Fig. 2) are arranged to receive ink from said ink nozzle, and said stamp roller and said pressure roller are arranged to guide a paper strip to be printed (21, Fig. 2).

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Regarding claim 18, Blau et al. teach a process for printing with a printing mechanism (23, Fig. 2) that includes a tempering device (par 0012, lines 2-3), said process comprising: adjusting a temperature of ink in the printing mechanism via the tempering device (“automatically compensate for temperature”, par 0012).

Regarding claim 19, Blau et al. also teach wherein the printing mechanism is located within a machine of the tobacco processing industry (par 0001).

Regarding claim 20, Blau et al. also teach wherein said machine is a cigarette rod machine (par 0001, line 11).

Regarding claim 21, Blau et al. also teach wherein the tempering device includes at least one of at least one heating element and at least one cooling element, and wherein the ink temperature is adjusted by the at least one of the at least one heating device and the at least one cooling device (“automatically compensate for temperature”, par 0012).

Regarding claim 28, Blau et al. also teach controlling or regulating the tempering device through a control or regulation device (“automatically compensate for temperature”, par 0012).

Regarding claim 32, Blau et al. teach a machine of the tobacco processing industry comprising the printing mechanism in accordance with claim 1 (par 0001).

Regarding claim 33, Blau et al. also teach wherein said machine is a cigarette rod machine (par 0001, line 11)..

Regarding claim 34, Blau et al. teach a process for printing a cigarette paper strip in the machine in accordance with claim 32, said process comprising: guiding the cigarette paper strip to a printing mechanism having a tempering device (par 0039, lines 9-14); and adjusting at least

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one of a temperature (“automatically compensate for temperature”, par 0012) of the ink in the printing mechanism via the tempering device.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-5, 14, 22-23, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al. in view of Voge, US 6,516,721.

Blau et al. teach all that is claimed as discussed in the rejection of claims 1 and 18 above, including:

- Claim 4: an ink supply, a metering device, and an ink nozzle (53, 43, 47, Fig. 2);

Blau et al. do not teach:

- Claim 4: said heating element being located with at least one of said ink supply, metering device, and ink nozzle;
- Claim 5: wherein said heating element comprises at least one of a heating cartridge and a heat sensor;
- Claim 14: a heating cartridge located one of integrally in said ink nozzle or to lie against said ink nozzle;

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- Claim 22: wherein the ink temperature is adjusted in at least one of an ink supply, a metering device, and an ink nozzle of the printing mechanism by the at least one heating element;

- Claim 23: wherein the at least one heating element comprises a heating cartridge.

Voge teaches and inking unit for a printing machine, including:

- Claim 4: said heating element (70, Fig. 4) being located with at least one of said ink supply;

- Claim 5: wherein said heating element comprises at least one of a heating cartridge (70, Fig. 4);

- Claim 14: a heating cartridge located one of integrally in said ink nozzle or to lie against said ink nozzle (34, Fig. 4; col. 9, lines 17-20);

- Claim 22: wherein the ink temperature is adjusted in at least one of an ink supply, and an ink nozzle of the printing mechanism by the at least one heating element (34, Fig. 4; col. 9, lines 17-20);

- Claim 23: wherein the at least one heating element comprises a heating cartridge (70, Fig. 4).

Regarding claims 4-5, 14, and 22-23, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Blau et al. to include a cartridge heater and a heater in the ink nozzle, because Voge teaches that such an apparatus is well known in the art, and one having ordinary skill in the art would recognize that these elements would be desirable elements to provide the specific functions and structure of the generic “apparatus which

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can automatically compensate for changes in temperature” of Blau et al.

7. Claims 6, 15, 17, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al. in view of Rossmeisl et al., US 6,324,973.

Blau et al. teach all that is claimed as discussed in the rejection of claims 1 and 18 above, including:

Claim 6: an ink supply, a metering device, an ink nozzle (Fig. 2).

Blau et al. do not teach:

- Claim 6: a temperature sensor, wherein said temperature sensor is positioned one of - (a) near at least one of said ink supply, metering device, and ink nozzle; or (b) on or in at least one of said ink supply; metering device, and ink nozzle;
- Claim 15: a temperature sensor located one of in and one said ink nozzle;
- Claim 17: a device to measure ink pressure before discharge from said ink nozzle;
- Claim 30: detecting a temperature of the ink in the ink nozzle;
- Claim 31: measuring ink pressure before discharge from the ink nozzle.

Rossmeisl et al. teach a method and apparatus for dispensing material in a printer, including:

- Claim 6: an ink supply, a metering device, an ink nozzle, and a temperature sensor (120, Fig. 3), wherein said temperature sensor is positioned on or in at least one of said ink supply; metering device, and ink nozzle (100, Fig. 3);
- Claim 15: a temperature sensor located one of in and one said ink nozzle (100, 120, Fig. 3);



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- Claim 17: a device to measure ink pressure before discharge from said ink nozzle (116, 100, Fig. 3);
- Claim 30: detecting a temperature of the ink in the ink nozzle (100, 120, Fig. 3; col. 7, lines 40-47);
- Claim 31: measuring ink pressure before discharge from the ink nozzle (100, 116, Fig. 3; col. 7, lines 40-47).

Regarding claims 6, 15, 17, and 30-31, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Blau et al. to include a temperature and pressure sensor in the vicinity or on the ink nozzle, because Rossmeisl et al. teach that temperature and pressure sensors placed in the vicinity of the ink nozzle to monitor the temperature and pressure of the ink are well known in the art, and one having ordinary skill in the art would recognize such elements would be advantageous in an “apparatus which can automatically compensate for changes in temperature” in that they would allow the controller to monitor the ink parameters which are to be controlled.

8. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al. in view of Feller et al., US 6,065,402.

Blau et al. teach all that is claimed as discussed in the rejection of claim 3 above, including:

- Claim 9: an ink supply, a metering device, and an ink nozzle.

Blau et al. do not teach:

- Claim 7: wherein said cooling element comprises a cooling plate;

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- Claim 8: wherein said cooling element is structured and arranged for a medium to flow through the cooling element;
- Claim 9: wherein said ink supply, metering device, and ink nozzle are at least partially located on the cooling plate.

Feller et al. teach:

- Claim 7: wherein said cooling element comprises a cooling plate (9, Fig. 1);
- Claim 8: wherein said cooling element is structured and arranged for a medium to flow through the cooling element (8, Fig. 1; col. 3, lines 8-11);
- Claim 9: an ink supply (3, Fig. 1) and a metering device (6, Fig. 1), wherein said ink supply and metering device, are at least partially located on the cooling plate (Fig. 1).

Regarding claims 7-9, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Blau et al. to include a cooling plate, and to mount the ink metering device on the cooling plate, because Feller et al. teach that such elements are well known in the art, and one having ordinary skill in the art would recognize that such elements would be advantageous in an “apparatus which can automatically compensate for changes in temperature” in that they would allow the temperature of the ink to be controlled.

9. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al. in view of Feller et al. as applied to claim 7 above, and further in view of Ayres et al., US 5,810,927.

The combination of Blau et al. and Feller et al. teaches all that is claimed as discussed in the rejection of claim 7 above, except:

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- Claim 10: wherein said cooling element comprises a device structured to produce a cooled airflow.
- Claim 11: wherein said cooling element comprises an eddy current generator.

Ayres et al. teach an ink temperature control device (9, Fig. 1), including modules (10, Fig. 1) which include fans (11, Fig. 2) which blow air and create eddy currents and help maintain the temperature of the ink (col. 1, lines 37-39).

Regarding claims 10 and 11, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Blau et al. to include a device to produce cooled airflow and eddy currents to cool the ink, because Ayres et al. teach that such a device is well known in the art, and one having ordinary skill in the art would recognize that such a device would be advantageous in an “apparatus which can automatically compensate for changes in temperature” in that they would allow the temperature of the ink to be controlled.

10. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al. in view of Voge et al. as applied to claim 21 above, and further in view of Feller et al.

The combination of Blau et al. and Voge teaches all that is discussed in the rejection of claim 21 above, except:

- Claim 24: wherein the at least one cooling element comprises a cooling plate, and wherein the ink temperature is adjusted by the cooling plate;
- Claim 25: flowing a medium through the cooling element;
- Claim 26: wherein at least some components of the printing mechanism are located at least partially on the cooling plate, whereby the components are cooled by the cooling

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plate.

Feller et al. teach:

- Claim 24: wherein the at least one cooling element comprises a cooling plate (9, Fig. 1), and wherein the ink temperature is adjusted by the cooling plate;
- Claim 25: flowing a medium through the cooling element (8, Fig. 1; col. 3, lines 8-11);
- Claim 26: wherein at least some components of the printing mechanism are located at least partially on the cooling plate, whereby the components are cooled by the cooling plate (3, 6, Fig. 1).

Regarding claims 24-26, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Blau et al. to include a cooling plate, and to mount the ink metering device on the cooling plate, because Feller et al. teach that such elements are well known in the art, and one having ordinary skill in the art would recognize that such elements would be advantageous in an “apparatus which can automatically compensate for changes in temperature” in that they would allow the temperature of the ink to be controlled.

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al. in view of Voge et al. as applied to claim 21 above, and further in view of Ayers et al.

The combination of Blau et al. and Voge teaches all that is claimed as discussed in the rejection of claim 21 above, except wherein the at least one cooling element comprises a device producing a cooled air flow, and the ink temperature is adjusted by directing the cooled air flow toward a portion of the printing mechanism.

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Ayers et al. teach an ink temperature control device (9, Fig. 1), including modules (10, Fig. 1) which include fans (11, Fig. 2) which blow air and create eddy currents and help maintain the temperature of the ink (col. 1, lines 37-39).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Blau et al. to include a device to produce cooled airflow and eddy currents to cool the ink, because Ayres et al. teach that such a device is well known in the art, and one having ordinary skill in the art would recognize that such a device would be advantageous in an "apparatus which can automatically compensate for changes in temperature" in that they would allow the temperature of the ink to be controlled.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Blau et al., US 6,647,878 B2, De Moore et al., US 6,116,158, Buenz, US 5,603,261, Maier, US 6,619,205, D'Amato et al., US 3,877,369, Sondergeld et al., US 5,046,420, and Price, US 6,571,710 each teach inking devices having obvious similarities to the instant application.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (571) 272-2167. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo T. Hinze  
Patent Examiner  
AU 2854  
24 June, 2004



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